

S/N 10/713,281

Response to Office Action Dated 05/30/2006

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In the Claims

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1. (Currently Amended) Adjustable aspect ratio optics, comprising:
a first scanning optical element;
a second scanning optical element to receive light from the first scanning optical element; and
wherein at least one of the first scanning optical element and the second scanning optical element is configured to allow adjustment of an aspect ratio associated with sweeps of the first and second scanning optical elements, wherein the adjustment comprises shifting between use of first and second polygons, wherein the polygons have different numbers of facets and together form one scanning optical element.
 2. (Original) The optics of claim 1, wherein the first and second scanning optical elements are refractive optics, respectively.
 3. (Original) The optics of claim 1, wherein the first and second scanning optical elements are first and second mirrors, respectively.
 4. (Original) The optics of claim 3, additionally comprising:
system electronics to determine an aspect ratio of image data and to perform the adjustment of the aspect ratio associated with the sweeps of the first and second mirrors.

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1 5. (Currently Amended) The optics of claim ~~[[3]]~~1, wherein ~~at least one~~
2 ~~of the first and second mirrors is a polygonal mirror. the shift between polygons~~
3 balances image size and image refresh rate.

4
5 6. (Currently Amended) The optics of claim ~~[[3]]~~1, wherein ~~at least one~~
6 ~~of the first and second mirrors adjusts by altering a number of facets used to~~
7 ~~reflect light. the first and second polygons are associated with widescreen and full~~
8 screen aspect ratios, respectively.

9
10 7. (Original) The optics of claim 3, wherein one of the first and second
11 mirrors is a galvanometric mirror.

12
13 8. (Original) The optics of claim 3, additionally comprising:
14 a mirror mover, attached to at least one mirror, to move the attached mirror
15 between first and second positions corresponding to first and second aspect ratios,
16 respectively.

17
18 9. (Original) The optics of claim 3, wherein the adjustment replaces at
19 least one of the first and second mirrors with another mirror.

20
21 10. (Original) The optics of claim 3, wherein the adjustment configures
22 the first mirror associated with a first sweep and the second mirror associated with
23 a second sweep to form an aspect ratio consistent with a desired aspect ratio.
24
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11. (Currently Amended) The optics of claim [[3]]1, wherein the shift comprises moving the first and second polygons of one scanning optical element in an axial direction. ~~at least one mirror is slid axially to result in a shift between usage of first and second polygonal mirrors.~~

12. (Currently Amended) A projection system, comprising:
a light source;
a first mirror to reflect light from the light source;
a second mirror to receive light reflected from the first mirror; and
a system controller to detect an aspect ratio associated with data to be projected, and to make an adjustment of at least one of the first and second mirrors in response to the detected aspect [[ratio.]] ratio;

wherein at least one of the first and second mirrors is a variable polygonal mirror comprising first and second polygons having different numbers of facets.

13. (Original) The system of claim 12, wherein the adjustment alters a number of facets used to reflect light by a polygonal mirror portion of the first or second mirror.

14. (Original) The system of claim 12, additionally comprising:
a mirror mover, attached to at least one of the first and second mirrors, to move the attached mirror between first and second positions in response to the detected aspect ratio.

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1 15. (Original) The system of claim 12, wherein one of the first and
2 second mirrors is a galvanometric mirror.

3
4 16. (Original) The system of claim 12, wherein the adjustment replaces
5 at least one of the first and second mirrors with another mirror.

6
7 17. (Currently Amended) The system of claim 12, wherein ~~at least one~~
8 ~~of the first and second mirrors is a polygonal mirror having first and second~~
9 ~~polygons, wherein the first and second polygons have different numbers of facets.~~
10 the first and second polygons are associated with widescreen and full screen,
11 respectively.

12
13 18. (Currently Amended) The system of claim 12, wherein the ~~at least~~
14 ~~one mirror~~ variable polygonal mirror is slid axially to result in a shift between use
15 of the first and second polygonal mirrors.

16
17 19. (Original) The optics of claim 12, wherein the adjustment configures
18 a first sweep associated with the first mirror and a second sweep associated with
19 the second mirror to form a ratio consistent with a desired aspect ratio.

20
21 20. (Original) The optics of claim 12, wherein the at least one mirror is
22 moved between first and second locations by a mirror mover.

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1 21. (Currently Amended) A processor-readable medium comprising
2 processor-executable instructions for:

3 examining image data to determine an aspect ratio associated with image
4 data; and

5 adjusting a degree of sweep made by mirrors within aspect ratio optics in
6 response to the detected aspect ratio, wherein adjusting the degree of sweep
7 includes instructions for moving a variable polygonal mirror in an axial direction
8 to shift between utilization of first and second polygonal mirrors forming the
9 variable polygonal mirror.

10
11 22. (Original) A processor-readable medium as recited in claim 21,
12 comprising further instructions for:

13 projecting an image according to the image data using the adjusted aspect
14 ratio optics.

15
16 23. (Original) A processor-readable medium as recited in claim 21,
17 wherein adjusting the degree of sweep includes instructions for:

18 moving a polygonal mirror to locate a desired number of facets within a
19 light path.

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1 24. (Currently Amended) A processor-readable medium as recited in
2 claim 21, wherein adjusting the degree of sweep includes instructions for:

3 ~~sliding a mirror, within the aspect ratio optics, axially to result in a shift~~
4 ~~between first and second polygonal mirrors.~~

5 adjusting between widescreen and full screen aspect ratios.
6

7 25. (Original) A processor-readable medium as recited in claim 21,
8 wherein adjusting the degree of sweep includes instructions for:

9 varying a number of facets associated with a polygonal mirror within the
10 aspect ratio optics.
11

12 26. (Original) A processor-readable medium as recited in claim 21,
13 wherein adjusting the degree of sweep includes instructions for:

14 selecting between polygonal mirrors to obtain a sweep resulting in a desired
15 aspect ratio.
16

17 27. (Original) A processor-readable medium as recited in claim 21,
18 wherein adjusting the degree of sweep includes instructions for:

19 adjusting a galvanometric mirror to result in an adjusted angle of sweep.
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1 28. (Currently Amended) A projection system, comprising:
2 means for detecting an aspect ratio associated with image data; and
3 means for adjusting aspect ratio optics in response to the detected aspect
4 [[ratio.]] ratio, wherein the adjusting comprises means for moving a variable
5 polygonal mirror to result in a shift between utilization of first or second
6 polygonal mirrors, wherein the polygonal mirrors have different numbers of
7 facets, and wherein the polygonal mirrors together form the variable polygonal
8 mirror.

9
10 29. (Original) The projection system of claim 28, additionally
11 comprising:

12 means for projecting an image according to the image data using the
13 adjusted aspect ratio optics.

14
15 30. (Original) The projection system of claim 28, additionally
16 comprising:

17 means for moving a polygonal mirror in response to the detected aspect
18 ratio to locate a desired number of facets within a light path.
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1 31. (Currently Amended) The projection system of claim 28,
2 ~~additionally comprising: wherein the means for adjusting aspect ratio optics~~
3 ~~comprises:~~

4 ~~means for sliding a mirror axially, within the aspect ratio optics, to result in~~
5 ~~a shift between first and second polygonal mirrors.~~

6 means for adjusting between widescreen and full screen aspect ratios.

7
8 32. (Original) The projection system of claim 28, additionally
9 comprising:

10 means for adjusting a sweep associated with a mirror within the aspect ratio
11 optics.

12
13 33. (Original) The projection system of claim 28, additionally
14 comprising:

15 means for selecting between polygonal mirrors to obtain a sweep resulting
16 in a desired aspect ratio.

17
18 34. (Original) The projection system of claim 28, additionally
19 comprising:

20 means for adjusting a galvanometric mirror to select a desired angle of
21 sweep.